

When "Good" Design Means Responsible Design

by John Paul Kusz



The horizons of responsible design continue to expand.

John Paul Kusz thoroughly summarizes these trends, which range from a discussion on judging good design to an overview of the activities of international environmental groups related to product development and trade. Most valuably, he explores the intersection of responsible design themes with innovative business strategies and the changing profile of the corporation.

Whether they are designers, design managers, or educators, many in the design community are motivated by the conviction that design's primary purpose is to help make the world a better place.

Throughout the past century, design's goals have evolved to include not only commercial aims, such as ease of manufacture, reliability, marketability, trade dress, and appearance, but also more altruistic goals, such as improved ergonomics, attention to "human factors," and a greater focus on the user



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interface. These latter goals were driven by a raised consciousness about the way the products we design might affect the user, for good or bad. The unintended consequences of some of our best efforts helped us to learn to create better products and reduce or eliminate hazards, such as repetitive motion injuries, not to mention exposure to toxic chemicals in the manufacture and use of some products.

Learning about new disciplines and applying that knowledge to the design of products and services has resulted in

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better products and better user experiences, as well as new opportunities and more recognition for the designers who first applied that knowledge in practice. Today, a product that looks

great but doesn't perform reliably or fit the population of its intended users is not considered a good design. The latter of these attributes, "fitting the population of intended users," was incorporated into the definition of good design after designers acknowledged and incorporated the discipline of engineering psychology, an area of study that emerged in the mid 1950s. Initially dealing with issues of perception and cognition related to the use of technologies, engineering psychology later evolved into

human factor engineering and ergonomics, with much of the pioneering work in the area done by design leaders like Henry Dreyfuss, who published *The Measure of Man* in 1960.

More recently, design has been looking at its role in the environmental impact of materials and processes. It has also begun to recognize its responsibilities and the effects of design decisions throughout the lifecycle of manufactured products. Driven by an understanding that we can, by design or by default, affect our environment, the design community has engaged in numerous efforts through its allied organizations to heighten environmental considerations. In late 1991, *The Design Principles of Environmental Stewardship* were generated through the efforts of several member organizations of the American Design Council, a coalition of 12 major US design organizations (including the Design Management Institute). The principles are conceptually broad to allow integration into a variety of design-related activities, ranging from architecture and product design to the graphic arts. Based on the *CERES Principles* created by the Coalition of

Environmentally Responsible Economies (www.ceres.org), they focus on important elements to consider as design continues to evolve: safe products and services, protection of the biosphere, sustainable use of natural resources, reduction of waste and increase of recycling, wise use of energy, reduction of risk, and sharing of information.

A number of initiatives dedicated to design for the environment have been mounted by design educators and practitioners since the early 1990s, reflecting increasing concerns about the negative ecological effects of continuing a pattern of unabated industrialization and consumerism. A summary of many of these initiatives have been recently chronicled on the "Eco-Section" pages of IDSA's Eco-Section website (www.idsa.org).

As with many previous evolutionary improvements in the application of design, some who embraced and led the changes struggled, as missionaries often do, while others benefited as clients' demands for more-comprehensive solutions increased. Ultimately, however, the entire profession benefited as the definition of what constitutes good design further evolved.

Civil Society

It is through a dialogue with a civil society, especially those elements in a society that lead the charge to make the world a better place, that the purpose of design has expanded and evolved. The presentation of good design to the consumer is an important part of the dialogue that designers have with the markets we serve. It is a dynamic conversation that takes place in the context of a society that expects better products: products that are more functional, more reliable, safer for the user, safer for the environment, and yet very desirable. The dialogue between the product producer and product consumer continues to expand the scope of design.

As consciousness about product safety and reliability rose, the making of safer and more-reliable products became first a marketing advantage and then an expectation. Take, for instance, infant products. Manufacturers that set

the standard with designs that did not endanger children avoided the losses in reputation and sales associated with Consumer Product Safety Commission (CPSC) recalls and subsequent product liability exposures. For some manufacturers, the enhanced reputation resulted in a significant marketing advantage. Translation: more sales!

For years, the dialogue between producer and consumer has been facilitated through independent groups that publish satisfaction and performance reports. They convey unbiased information to both product producers and prospective consumers. Organizations like Consumers Union, the independent product testing group that publishes *Consumer Reports*, and J.D. Power and Associates, a group that conducts surveys of customer satisfaction, product quality, and buyer behavior, provide metrics that tell both prospective buyers and current manufacturers about a product's standing relative to its competition. *Consumer Reports* has been on the scene since 1936 and J.D. Power and Associates since 1968.

These facilitating groups and others have evolved with the society they serve. For example, *Consumer Reports* now includes a site devoted to the environment and sustainability issues. The site, www.greenerchoices.org, enumerates the benefits associated with making environmentally conscious choices and addresses broader-scale environmental issues related to energy, climate change, agriculture, waste, and dangerous chemical substances, connecting the information to individual products. Energy calculators and explanations of information found on food labels are also featured, as well as links to resources on local energy, water, and sewage treatment services. Products in several categories, from electronics to autos and food, are currently included, along with information on how to incorporate environmental and health considerations into a product's purchase, use, recycling, and disposal. A green ratings section ranks a product's energy, water, fuel efficiency, and other factors.

These environmental issues were not long

ago the focus of special interest groups, such as Green Seal (www.greenseal.org) in the US and the Environmental Choice Program in Canada (www.environmentalchoice.ca). The fact that these issues are being included in assessments by the traditional product rating groups is a clear indication that concern about the ecological effects of our purchasing decisions is growing in the general population.

The work of these groups is further augmented with efforts focused on specific products or sectors. One example is the Forest Stewardship Council (FSC). Founded in 1993, FSC is an international nonprofit organization that offers certification for wood and paper products that come from properly managed forests (www.certifiedwood.org). With representatives from environmental and conservation groups, the timber industry, the forestry profession, indigenous peoples' organizations, community forestry groups, and certification organizations from 25 countries, FSC provides public information, offers a national dispute resolution mechanism, and monitors certification organizations to ensure compliance with FSC requirements.

Both within the design community and in society, the number of those concerned with environmental issues has steadily grown. As the number of consumers who preferentially buy products with positive environmental attributes increases, designers, and the producers they serve, will continue to gain market advantage in two significant ways. They will have already placed the desired products in the marketplace and they will have the information and credibility to participate in setting criteria for mandates associated with environmental attributes, whether they are mandates promulgated by a government agency or the criteria of a consumer interest group.

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The Next "Design" Issue—Equity and Human Rights

While we have begun to address issues of ecological concern by mitigating the negative effects of our products and services with new tools and knowledge from other disciplines, questions continue to surface. Issues such as child labor

and fair trade have raised concerns about the consequences of our decisions as they relate to product and material sourcing.

They have become relevant to a growing group of both consumers and designers.

Equity and human rights issues were first recognized by a small group of concerned individuals who saw the connection between these unintended or unseen consequences and our design and business decisions, setting them in confluence with the concerns expressed about unintended ecological consequences.

Nongovernmental organizations (NGOs), such as the Forest Stewardship Council, have begun to include and address these issues with multi-stakeholder-group oversight and governance. Others are more active, linking producers and consumers directly to assure fair trade and equitable treatment of all members of the supply chain. The Fairtrade Foundation (www.fairtrade.org.uk), established in 1992, operates in association with Labeling Organizations International (<http://www.fairtrade.net>) to unite 20 national initiatives across Europe, Japan, North America, Mexico, and Australia/New Zealand. It facilitates commercial relations, communications, certification, operations, finance, and IT with suppliers of goods and services from around the world in an effort to promote social equity.

Activities like those of FSC and Fairtrade may seem insignificant at first, but they represent an alternative business model in a real-world test. They can be catalysts for a paradigm shift in the business model of larger organizations. This has happened with fair-trade coffee at Starbucks and with certified lumber at Home Depot.

These NGOs have embraced the tenets of sustainability first forwarded by John Elkington, author and founder of Sustainability, Inc., a think tank and strategy consultancy in England that focuses on the market risks and opportunities related to corporate social responsibility and sustainable development. These tenets were subsequently codified by a publication, *Our Common Future*, more often known as the Brundtland report. The report, published in 1987 by the World Commission on Environment and Development and named after commission chairwoman Gro Harlem Brundtland, developed guiding principles for sustainable development as it is generally understood today. It stated that critical global environmental problems were primarily the result of the enormous poverty of the South and the nonsustainable patterns of consumption and production in the North, and it called for a strategy that united development and the environment and defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The three E's of *environmental integrity, social equity, and economic viability* are equal parts of a conscious and inseparable confluence that defines the ideal of sustainability. The design community, as a part of an increasingly sensitized world, faces the challenge of making these three E's work. Getting there is yet another chapter in the continuing story about what will define responsible (good) design. But how should design evolve in order to participate in the creation of truly sustainable product and enterprise models? Will the opportunity to engage design in the pursuit of sustainability elude us?

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Realigning Design

As design has been evolving and expanding to meet new challenges, the business community in which design operates has been evolving, as well. Some players in this community have taken a leading role in developing strategies that might lead to more sustainable business and product models.

Focused on the business issues and working for a confluence of the three E's, a number of organizations have engaged both leaders and laggards in business to promote positive change. Some of these, like the World Business Council for Sustainable Development (WBCSD) (www.wbcscd.org), have worked with member companies in addressing these issues on a sector-by-sector basis. Others, like the Center for Sustainable Enterprise (www.stuart.edu/cse) and the Sustainable Development Research Centre (SDRC) (www.sustainableresearch.com), provide oversight, research, and education related to advancing the sustainability agenda.

This process has accelerated rapidly in the last few years, evidenced by the rapid growth of MBAs emphasizing corporate social responsibility or sustainable enterprise. The SDRC has partnered with the University of Nottingham to offer a doctorate of business administration (DBA) in corporate social responsibility, anticipating the need for senior-level executives who will be responsible for structuring and implementing sustainability strategies in the future. This is happening now, and it will change the structure of organizations and how they shape their product and business models.

Design strategy is more aligned with micro and macro business strategy than ever before. Will the role of design change as sustainability moves to the executive suite as a core competence in leading companies? Is design management, as a discipline, strategically aligned with the coming paradigm shift?

If design and design management is to continue to play a role in corporate strategy development, it is essential that designers and design

managers become literate in the area of sustainability and corporate social responsibility. The creative power of design can play a major role in integrating the tenets of sustainability and generating solutions that balance the tenets with new product and business models.

As the evolution of design continues, it is becoming apparent that the object of our design efforts is not just the product or service but also the business model in which those products and services are delivered and managed. Without a viable business model that meets the needs of the marketplace and the stakeholders that design serves, our efforts to provide optimal solutions will continue to be compromised by the constraints of a less-than-optimal operating environment. Design, as a discipline, can creatively facilitate the development of business and enterprise models. Without our strategic engagement in the development of transparent and sustainable business models, our efforts will continue to reinforce models that are less than what is possible.

The product of the confluence of concerns relating to the environment and to social equity is likely to trigger the next evolution in the practice of design—the redesign of both product and business models based on balancing the tenets of sustainability.

Simply put, the product model and the business model are converging. A business model that resonates with the tenets of sustainability is more likely to generate products and services that do so, as well. Without a well-considered business model, the product's potential is hobbled.

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A Lens to View How Capital Is Managed Today and Might Be Managed in the Future

Form of capital Form of commodity management and disposition	Effects of the form of disposition management at the enterprise level	Natural capital (principal) Source of all other forms of capital (basis of all wealth)	Human capital (principal) Evolved means of production of physical capital and goods and services	Physical capital (principal) Constructed means of production of goods and services	Are Our Products Physical Assets?	Financial capital (principal) Constructed value metric & surrogate for natural, human, and physical capital
Asset management (Lifecycle management) Internal to product and process	Makes value (capital) <u>Profit Center</u> <i>Pre-product</i> <i>Pre-process decision</i>	Restored ecology Offset ecology depletion Building ecology principal?	Minimal health risks/costs Adding to human health and welfare	Pre-production plant and equipment costs Investment?		Recovered costs (profits) Return on investment Creating wealth? (principal)
Resource management (Reduce—Reuse—Recycle) External to product	Saves value (capital) <u>Cost Management Center</u> <i>Post-product</i> <i>in process decision</i>	Mitigated ecologic depletion Reducing principal costs (interest)	Moderate health risks/costs Stabilizing current human health and welfare conditions?	In-production plant and equipment costs		Reduced total costs (savings) Slow wealth (principal) depletion? Redistributes wealth? (principal)
Waste management External to process and product	Takes value (capital) <u>Cost Center</u> <i>Post-product</i> <i>Post-process decision</i>	Highest risk of ecologic depletion Harvesting, mining, eroding principal	Highest health risks/costs Degrading human health and welfare	Post-production plant and equipment costs		Added total costs Depletion of wealth (principal)

Redesigning Product/Business Models

At the Stuart Graduate School of Business and with clients at the school's Center for Sustainable Enterprise, we are exploring strategies that generate sustainable product and business models. As we have explored integrating the tenets of sustainability with the product and operating models of our business partners, we have gained new insights into the relationship between risk management and business opportunity. Much of our work includes looking for the best practices of those businesses that have evolved with a commitment to a continual improvement strategy—firms that have developed a resilience and capacity to embrace emerging issues with an attitude of exploration and excitement, an attitude that keeps them moving toward sustainability, in every sense of the word. A reasonably good example of such a company is Patagonia (www.patagonia.com) whose founder, Yvon Chouinard, is a designer. His and the company's design philosophy is featured prominently on Patagonia's website, which also tells more about how the company has incorporated tenets of sustainability into its operating model.

Our work has revealed some insights about which attributes are likely to be found in a sustainable company. We have also studied ways in which a company might assess its current capital management strategies by moving those strategies through a hierarchy that strives to manage all the capital over which the firm has any control as a high-order asset. In our analysis, we include and assess all the forms of capital over which the firm has control or influence. As most recently defined by Lovins, Lovins, and Hawken in *Natural Capitalism*, the forms of capital include natural, human, physical, and financial capital. This approach is an extended form of

total asset management (TAM), which goes beyond the typical financial and physical asset analysis. Using a template, we can qualitatively and quantitatively assess the current management strategies of the enterprise as it is applied to each form of capital in the organization.

Three management strategies have been developed for the purpose of our assessment: waste, resource, and asset management. They are presented on the vertical axis of the template.

The four forms of capital mentioned are presented on the horizontal axis of the template. It presents natural capital as the first order of capital, human capital as the second, physical capital as the third, and financial capital (the metric and surrogate for the three reality-based forms of capital) as the fourth. The order demonstrates that each form of capital is born of its antecedent;

both the existence and the quality (health) of each are reflected in its successor. High-quality natural capital begets high-quality human capital, which, in turn, begets high-quality physical capital, and so forth. Determination of which strategy is currently being used and which steps need to be taken to move to a higher order of management is the primary objective of the exercise. TAM allows management to envision changes with a direction and alignment that looks to the other forms of capital for support and complement. For instance, those whose mandate is the stewardship of human capital are aligned with those who manage financial, physical, and natural capital. The template works as a visual aid that helps enterprise management to see the potential for change and to creatively explore alternatives and the interactive effects of proposed changes. Much of the exploration and evaluation of alternatives is accomplished

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through the process of narration and scenario development—storytelling.

In experimenting with the template as a source of "visioning," the discussion tends to lead to how asset management might be achieved and annuity streams generated as opposed to a one-time sale (multiple-transaction versus one-time transactions). This can open discussion about how the enterprise might meet stakeholder needs most effectively while achieving returns on the investment to the benefit of all the forms of capital in the firm. Issues related to vertical integration, network/system effects, the theory of the firm, and the utility transaction can be explored in the dialogue. Strategies for change can then be prioritized and scheduled for implementation.

The model redirects the visioning of the group from an inward focus to an expansive/inclusive perspective that includes a larger community of stakeholders. Based on the application of systems thinking and dialoguing, a sustainable product or business story evolves, a story that has realigned the functions of the organization, including the design function, to resonate with the tenets of sustainability. The story is the platform on which the corporate culture stands.

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